This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Please cancel claims 19 and 24 without prejudice.

Please amend the claims as follows:

1.   (Currently Amended) A method for providing notifications of changes in a database system, comprising:

receiving a plurality of SQL query statements for querying a relational database system, each SQL query statement corresponding to a computing application that has subscribed to receive notification of changes in the database system affecting data retrieved from the database system by the computing application;

creating a subscription template from the plurality of SQL query statements, the template not comprising any constants;

generating a parameter table from the plurality of SQL query statements, the parameter table comprising for each SQL query statement a constant representing a query value, and a subscription identification value uniquely identifying a subscription associated with the particular SQL query statement, and subscriber routing information;

in response to a change in the data in the database, performing a join between said parameter table and said subscription template to generate a query;

executing the query on the database system to identify SQL query statements in the plurality of SQL query statements affected by the change in the data in the database; and

communicating notification to a computing application corresponding to an identified SQL query statement, said notification indicating a change in the data in the database has occurred.

2.   (Previously Presented) The method as recited in claim 1, further comprising communicating data from the database system to the computing application.

3.   (Canceled)

4.   (Previously Presented) The method as recited in claim 1, further comprising retrieving data from the database system.

5.   (Previously Presented) The method as recited in claim 4, further comprising communicating the data retrieved from the database system to the computing application, said updated data reflecting the change in the data in the database.

6.   (Canceled)

7.   (Previously Presented) The method as recited in claim 1, further comprising associating the subscription identification value with a subscriber.

8.   (Cancelled)

9.   (Original) The method as recited in claim 1, further comprising adding additional parameters to the parameter table, wherein the additional parameters are not based on the created subscription template.

10.   (Currently Amended) A computer readable storage medium having computer readable instructions to instruct a computer to perform ~~the~~ a method ~~as recited in claim 1~~ for providing notifications of changes in a database system comprising:

receiving a plurality of SQL query plans for querying a relational database system, each SQL query plan corresponding to a computing application that has subscribed to receive notification of changes in the database system effecting output from the database system to the computing application;

creating a subscription template from the plurality of SQL subscription plans, the template not comprising any constants;

generating a parameter table from the plurality of SQL query plans, the parameter table comprising for each SQL query plan a constant representing a query

value, ~~and~~ a subscription plan identification value uniquely identifying a subscription associated with the particular query plan, and subscriber routing information;

in response to a change in the data in the database, performing a join between said parameter table and said subscription template to generate a query;

executing the query on the database system to identify <u>SQL</u> query plans in the plurality of <u>SQL</u> query plans affected by the change in the data in the database; and

communicating notification to a computing application corresponding to an identified <u>SQL</u> query plan, said notification indicating the change in the data in the database has occurred.

11.   (Currently amended) A system to increase subscription scalability in an electronic database environment comprising:

<u>a computing processor;</u>

<u>computing memory communicatively coupled to said computing processor, said computing memory having stored thereon instructions executable by said computing processor for providing the following:</u>

a <u>relational</u> database system, the database system capable of accepting and processing subscriptions by cooperating services and/or computing applications, the subscriptions offering query templates for execution on database system to retrieve desired data;

a notification manger, the notification manager operating on the database system to identify changes in data in the database system and to provide notifications to the cooperating services and/or computing applications of database system changes;

an optimization module, the optimization module using <u>SQL</u> queries originating from subscribers to create subscription templates, <u>the templates not comprising</u> <u>any constants and being</u> ~~which are~~ paramterized to create a parameter table, said parameter table comprising for each query a constant representing a query value, ~~and~~ a subscription identification value uniquely identifying a subscription associated with a particular <u>SQL</u> query, and subscriber routing information,

wherein said notification manager is adapted to:

join the parameter table with at least one of the subscription templates to
generate a notification query,

execute the notification query on the database system to identify <u>SQL</u> queries
affected by changes in the database system, and

communicate notification to a computing application corresponding to an
identified <u>SQL</u> query, said notification indicating a change in the data in the database
has occurred.

12.   (Original) The system as recited in claim 11, wherein the optimization
module comprises a computing application.

13.   (Original) The system as recited in claim 11, further comprising a
communication means, the communication means for use in communicating data between the
database system and the cooperating services and/or computing applications.

14.   (Original) The system as recited in claim 12, further comprising a spool, the
spool used to spool subscription queries.

15.   (Original) The system as recited in claim 14, further comprising a filter, the
filter used to filter out subscription queries.

16.   (Canceled)

17.   (Original) The system as recited in claim 11, wherein the notification
manager and the database system reside in the same data environment.

18.   (Original) The system as recited in claim 17, wherein the notification
manager, the database system, and the optimization module reside in the same environment.

19.   (Cancelled)

20.   (Currently Amended) A method for increasing subscription scalability in electronic data environments comprising:

accepting subscriptions from cooperating services and/or computing applications by a relational database system, the subscriptions comprising SQL queries for querying the database system;

processing the SQL queries ~~subscriptions~~ to generate query templates, the query templates having queries and not comprising any constants;

parameterizing the query templates to generate a parameter table, said parameter table comprising for each query a constant representing a query value, ~~and~~ a subscription identification value uniquely identifying a subscription associated with the particular query, and subscriber routing information;

in response to a change in the data in the database, joining the parameter table with the query templates to generate a notification query;

executing the notification query on the database system to identify SQL queries affected by the change in the data in the database; and

communicating notification to a computing application corresponding to an identified SQL query, said notification indicating the change in the data in the database has occurred.

21.   (Original) The method as recited in claim 20, further comprising spooling the query templates.

22.   (Original) The method as recited in claim 21, further comprising filtering the query templates.

23.   (Canceled)

24.   (Canceled)

25.   (Original) The method as recited in claim 20, further comprising adding parameters to the parameter table not originating from the query templates.

26.   (Currently Amended) A computer readable <u>storage</u> medium having computer readable instructions to instruct a computer to perform a method for increasing subscription scalability in electronic data environments comprising:

accepting subscriptions from cooperating services and/or computing applications by a <u>relational</u> database system<u>, the subscriptions comprising SQL queries for querying the database system</u>;

processing the <u>SQL queries</u> ~~subscriptions~~ to generate query templates, the query templates ~~having queries~~ <u>not comprising any constants and being formed as a database table</u>;

parameterizing the query templates to generate a parameter table, said parameter table comprising for each query a constant representing a query value<u>,</u> ~~and~~ a subscription identification value uniquely identifying a subscription associated with the particular query<u>, and subscriber routing information</u>;

in response to a change in the data in the database, joining the parameter table with the query templates to generate a notification query<u>;</u>

executing the notification query on the database system to identify <u>SQL</u> queries affected by the change in the data in the database; and

communicating notification to a computing application corresponding to an identified <u>SQL</u> query, said notification indicating the change in the data in the database has occurred.